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THE RELATIONSHIP OF PASSIVE VERSUS AGGRESSIVE
MODE OF EXPRESSION TO ACADEMIC ACHIEVEMENT

by

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The subjects used in this study were 300 entering freshman males at the University of North Carolina; the configuration of scales 3(Hy) and 4(Pd) of the MMPI was used as a measure of passive versus aggressive mode of expression. Scores on the Scholastic Aptitude Test were used as a covariable; GPA after the freshman year was the dependent measure of academic performance. The effects of the mode of expression on academic performance were significant only for those students with extremely passive or extremely aggressive modes of expression. An extremely passive mode of expression facilitated academic performance while an extremely aggressive mode of expression significantly hindered performance.

The Relationship of Passive versus Aggressive Mode of Expression to Academic Achievement

The problem of predicting academic success in colleges and universities is increasing in importance with the greater number of applications for admission each year. Unfortunately, studies indicate that aptitude tests as a whole average only a .50 correlation between test performance and subsequent academic performance (Middleton and Guthrie, 1959). To account for the rest of the variation in academic performance a great deal of research has been done to determine the existence of any significant correlation between personality factors and academic performance, with conflicting results (Taylor, 1964).

Kline and Gale (1971) used the Eyesenck Personality Inventory to test Eyesenck's hypothesis that the mildly neurotic introvert makes the best student. The subjects were introductory psychology students; their results indicated no significant correlation in either direction between academic performance and introversion-extraversion or neuroticism.

On the other hand, Holland (1959) found that high academic achievers (as based on grade point average) lack poise and self-confidence and tend to worry about the impression others have of them.

The low achiever was found to have positive self-values, to be socially skillful and impulsive. An unwillingness to conform and extrapunitive tendencies were also found to be characteristic of students with poor academic performance. The subjects studied were college freshmen with very high aptitude scores; the personality traits were determined by interpretation of the California Psychological Inventory.

In direct contrast, a study by Merrill and Murphy (1959) using the Edwards Personal Preference Schedule indicated that over-achievers were dominant, ambitious and persistent while under-achievers were exhibitionistic and less aggressive. The subjects were college freshmen with a predicted grade point average (GPA) of 1.50 or below. Over-achievers had a GPA of 2.0 or above after one college quarter while under-achievers had a GPA of 1.0 or below after one quarter.

Thus, one explanation for the differences in personality linked with high academic achievement may be found in the subject differences - one group of high aptitude subjects (Holland) and one group of low aptitude subjects (Merrill and Murphy). However, Gowan's conclusions (1957) regarding gifted students (IQ of 130 or above) conflict with those of Holland.

Gowan described the student who achieved according to his potential as optimistic, self-confident and having positive self-values. The under-achiever, defined by a performance level more than one standard deviation below his ability level for the age group, characteristically lacked confidence, tended to be withdrawn and attempted to be self-sufficient.

These contradictory results certainly do not provide an adequate basis for prediction of academic success, with positive self-values and self-confidence being attributed to students with both high academic performance and low academic performance. Some of the discrepancy may be due to the use of different personality tests in the various studies and may reflect labeling different traits with the same name.

Related research has also been done with the Minnesota Multiphasic Personality Inventory (MMPI), a widely used personality inventory, in conjunction with predicting academic performance. The inventory is classified into subscales, the basic scales being three validity scales and ten clinical scales.

- L - lie scale
- F - validity scale
- K - defensiveness
- 1 - hypochondriasis (Hs)
- 2 - depression (D)
- 3 - hysteria (Hy)
- 4 - psychopathic deviate (Pd)
- 5 - masculinity-femininity (Mf)
- 6 - paranoia (Pa)
- 7 - psychasthenia (Pt)
- 8 - schizophrenia (Sc)
- 9 - hypomania (Ma)
- 0 - social introversion-extraversion (Si)

A detailed explanation of these scales can be found in Dahlstrom, Welsh and Dahlstrom's handbook (1972).

Barger and Hall (1964) administered the MMPI to entering college freshmen and found that males with a high point on scale 5(Mf) and males and females with a high point on scale 2(D) had a GPA commensurate with their aptitude scores. Males with a high point on scale 3(Hy) and females with a high point on scale 4(Pd) did not perform academically in accordance with their aptitude scores.

Faunce (1972) compared high-ability college women and college women-in-general in terms of their MMPI profiles. The high-ability subjects were entering freshmen from 1950-1958 who scored at the eightieth percentile or above on the American Council on Education Psychological Examination (ACE) and had a high school percentile rank of 90 or above. The group of college women-in-general was picked randomly from the entering freshman classes of 1959 and 1961 (the group included some high-ability women). The high-ability women had high points most often on scales 6(Pa), 3(Hy) and 0(Si) while women-in-general tended to score higher on scales 7(Pt) and 9(Ma). Unfortunately no correlation was made with academic performance.

Yeomans and Lundin (1957) found that male college seniors in the top 25% of their class in academic performance scored significantly lower on scales 4(Pd) and 9(Ma) than the bottom 25% and that freshman males in the top 25% of their class scored higher on scale 5(Mf) and lower on scales 3(Hy), 4(Pd) and 9(Ma) than the bottom 25%. Centi (1961) used eight subjects from each class, chosen randomly from the ten highest ranking and ten lowest ranking students in each class. The results indicated that those with lower GPAs had higher scores on all ten basic MMPI clinical scales in general and were significantly higher on scales 1(Hs), 3(Hy), 7(Pt) and 8(Sc).

Drake and Oetting (1957) found that male college students with their two highest points on scale 8(Sc) and scale 9(Ma) combined with a low score on scale 0(Si) were less academically motivated and had a lower GPA; however, when scale 5(Mf) was also elevated, grades were not below average. The utility of this analysis is minimal since only 124 of 3,480 profiles had this particular combination of scale elevations.

A study done by McKenzie (1964) with entering male freshmen indicated that low achievers were significantly higher on scales 4(Pd) and 7(Pt) than middle achievers, and high achievers were significantly higher on scales 2(D), 5(Mf) and 7(Pt) than middle achievers. The groups

were divided according to t-scores on the Cooperative School and College Ability Test (SCAT) and freshman GPA converted to t-scores. Underachievers were defined as having a GPA t-score 10 or more points lower than the SCAT t-score; normal achievers had a difference of 9 or less points between the two t-scores; over-achievers had a GPA t-score 10 or more points higher than the SCAT t-score. Although both under- and over-achievers scored significantly higher than normal achievers on scale 7(Pt), McKenzie indicates that the differences in academic performance can be explained by the idea that under-achievers externalize their conflicts while over-achievers internalize their anxiety.

In agreement with McKenzie, Morgan (1952) also found that non-achievers had a high point on scale 4(Pd) significantly more often but indicates that the preponderance of high 4s is partially due to the absence of higher scores on the neurotic scales (1,2,3) which were more often obtained by the achievers. Morgan's subjects were male college sophomores of high ability, defined by a score at or above the ninetieth percentile on the ACE. These high ability students were ranked according to GPA and divided into thirds - the top third being designated as the achievers and the bottom third as the non-achievers.

Unfortunately, the research done with a single instrument for personality measurement, the MMPI, does not distinguish a concise method for the prediction of academic success. Various high points were found to be correlated positively with academic success (scales 1,2,3,5,6,7) without any consistency among studies. This may be, to some extent, a function of the differences in age and sex of subjects in the various studies. Although McKenzie, Morgan, Yeomans and Lundin agreed that a high point on scale 4(Pd) is negatively correlated with academic performance, Murray, Munley and Gilbert (1965) demonstrated that scores on scale 4(Pd) are higher for college students in general. As Morgan suggests, the proportion of high points on scale 4(Pd) may be the result of unusually low scores on other scales (specifically, the neurotic scales). Thus, given that college students have an elevated 4(Pd) scale, it may be that those students with high academic performance may be distinct in that another scale is dominant over their scale 4(Pd).

PROBLEM

In this study, an attempt was made to return to McKenzie's hypothesis that low achievers express their conflicts externally while high achievers internalize

their anxieties. The MMPI was employed as the measurement of the mode of expression based on the configuration of scales 3(Hy) and 4(Pd). The basis for the use of these two scales is found in Dahlstrom, Welsh and Dahlstrom:

The magnitude of scale 4 seems to reflect the aggressive or hostile feelings and impulses that are present to a significant degree, while the scale 3 height in turn shows that repressive and suppressive controls are even stronger than the impulse (1972, Volume 1, p. 267).

Thus when scale 3(Hy) is higher than scale 4(Pd) the conflict tends to be expressed in a passive manner. When scale 4(Pd) is substantially higher than scale 3 (Hy), the conflict is more often expressed externally; the individual is characterized by chronic hostility and aggression (Dahlstrom, Welsh and Dahlstrom, 1972, Volume 1). The hypothesis in this study was that students with scale 3(Hy) substantially higher than scale 4(Pd) would express conflicts passively and thus have higher academic performance than those students with scale 4(Pd) substantially higher than scale 3(Hy) who tend to express conflict aggressively. The subject variable was the mode of expression and the dependent measure was the subject's academic performance.

METHOD

The subjects were 300 entering male freshmen at the University of North Carolina in 1968. The booklet form of the MMPI was administered during orientation; the IBM answer sheets were scored by computer for the three validity scales and 10 basic clinical scales. The raw scores were converted to T-scores ($T = 50 + 10(X - M)/SD$ where X is the raw score) with K-corrections. The 300 profiles were chosen according to a stratified random sampling procedure after the entire population of 1462 males taking the test were classified as to mode of expression.

The test profiles were divided into three personality types on the basis of the 3-4 scale configuration: a) passive expression - T-score for scale 3(Hy) six or more points higher than for scale 4(Pd); b) aggressive expression - T-score for scale 4(Pd) six or more points higher than for scale 3(Hy); c) unresolved mode of expression - T-score for scales 3 and 4 within a five point range (i.e., a difference of 5 or less points in T-scores between scales 3 and 4). This classification placed 295 profiles in the passive group, 477 in the aggressive group and 690 in the unresolved group; proportionate random samples of 60, 100, and 140 subjects were taken from each group respectively.

An aptitude test score, the Scholastic Aptitude Test (SAT), for each subject was used to control for the known correlation between intellectual aptitude and academic performance. The dependent measure of academic performance was the GPA for each subject after the spring semester of the freshman year (computed on a four-point scale).

RESULTS

Initially a one way analysis of variance was done comparing the three personality modes as to their SAT scores in order to determine if there were significant differences in intellectual aptitude between the three groups which would affect their academic performance. The mean aptitude score for the passive group was 1081.7500, the mean for the aggressive group was 1067.6500, and the mean for the unresolved group was 1114.3999. An F-ratio of 3.0537 was obtained which indicated a significant difference among the three groups at the .05 level. A test for the Least Significant Difference (LSD) revealed that the aggressive group was significantly lower in aptitude than the unresolved group, but that the differences in aptitude between the passive and aggressive groups and between the passive and unresolved groups were not significant at the .05 level.

To control for the differences which did exist in intellectual aptitude, the SAT score for each subject was employed as a covariable in a one-way analysis of covariance of GPA by type of expression. The mean GPA for the passive group was 2.24; the mean for the aggressive group was 2.07; and the mean for the unresolved group was 2.27. The F-ratio obtained for the effects of mode of expression on GPA was 1.132 which did not indicate a significant difference between the three groups at the .05 level.

In view of this lack of significance, another sample was taken from the original population of 1462 freshman males. A proportionate number was selected from the aggressive group and from the passive group as representing the extremes in these two modes of expression. The extreme was defined by the magnitude of differences between the T-score on scale 3(Hy) and the T-score on scale 4(Pd). The absolute value of the differences was used for selecting the subjects with the greatest deviation from the zero difference point. These subjects were considered to be representative of the most passive mode of expression and the most aggressive mode of expression. Thirty-seven passive subjects and 57 aggressive subjects with the greatest absolute

difference were chosen; the difference in sample size reflects the differences in the sizes of the groups in the total population (295 in the passive group and 477 in the aggressive group). Using these two extreme groups, another one-way analysis of covariance was done to assess the effects of mode of expression on GPA with SAT scores as a covariant. The mean SAT score for the passive group was 1058.19, the mean score for the aggressive group was 1083.04. This difference was significant at the .003 level. The mean GPA for the passive group was 2.39, the mean for the aggressive group was 1.81. This difference was statistically significant at the .001 level.

DISCUSSION

The hypothesis in this study was that students with a tendency to express conflict passively would perform better academically than those students with more aggressive tendencies. The effects of this personality factor was examined after the known effects of intellectual ability had been removed. Although the results of the statistical analysis comparing the three groups in the original sample were not significant, the differences were in the predicted direction. Those students with a passive mode of expression had a

higher GPA ($\bar{X} = 2.24$) than those determined to have an aggressive mode of expression ($\bar{X} = 2.07$).

Another interesting finding in the initial statistical comparison was that the unresolved group was significantly higher in intellectual ability ($\bar{X} = 1114.3999$) but did not perform significantly higher academically ($\bar{X} = 2.27$). This failure to realize their intellectual potential may be in some measure due to a clash between passive and aggressive tendencies in expressing conflicts. Neither the aggressive impulses nor the suppressive controls referred to above by Dahlstrom, Welsh and Dahlstrom (1972, Volume 1) were of a magnitude to dominate; hence a vacillation between passive and aggressive modes of expression. However, it should be noted that the unresolved group did have a higher GPA than either the passive or aggressive group, even though this difference was not significant.

The failure to find a significant difference in academic performance among groups for the original sample can perhaps be explained by the leniency in classification of the modes of expression. Those subjects with an absolute difference in T-score between scales 3(Hy) and 4(Pd) of greater than five points were labeled as passive or aggressive in their mode of expression, depending on the direction of the difference. However,

this difference in T-score may not have been of sufficient magnitude to indicate a stable mode of expression. In other words, some of those subjects with small absolute differences between the two scales may, like those in the unresolved group, have had some vacillation between passive and aggressive modes of expression. If the hypothesis were true that a more passive mode of expression facilitates academic performance and a more aggressive mode of expression deters performance, then a vacillation between the two would result in a performance approaching the mean or average for the entire population. Thus, the hypothesis may be supported by the extremes from each mode of expression.

The second sample taken from the population of 1462 freshman males taking the test, was composed of only those subjects with the most extreme absolute differences between scale 3(Hy) and scale 4(Pd). A statistical comparison was made between these two groups representing the most passive and the most aggressive type of expression with regard to intellectual ability and academic performance. The results indicated that those subjects in the aggressive extreme were significantly higher in intellectual aptitude ($\bar{X} = 1083.04$) than those in the passive extreme ($\bar{X} = 1058.19$). However, the students with an extremely passive mode of

expression were significantly higher in academic performance ($\bar{X} = 2.39$) than the extremely aggressive group ($\bar{X} = 1.81$). These findings provided strong support for the proposed hypothesis; the students with a markedly passive mode of expression performed significantly better despite their subordination in intellectual aptitude. Those with an extremely aggressive mode of expression failed to actualize their intellectual potential; despite their superior ability they fell short of the students with an extremely passive mode of expression.

Freudian personality theorists may find some support for their hypothetical constructs in these results. The group with an extremely passive mode of expression could easily serve as a legitimate example of suppression and sublimation. In interpreting this configuration of scales, the domination of scale 4(Pd) by scale 3(Hy) suggests that the suppressive controls are strong enough to restrain the aggressive impulses. Freudians may draw a parallel to the ego and the id in their framework of personality. The energy release which is blocked by suppression can be channeled by sublimation into socially acceptable outlets such as studying for superior academic performance. This suppressed energy used for sublimation may then compensate for the inferior intellectual

aptitude found in this extremely passive group. Thus it would seem that the personality dynamics of this group with an extremely passive mode of expression could be construed so as to support Freudian notions.

However, other personality theorists may find an alternative explanation for the results more palatable. Those subjects with an extremely aggressive mode of expression may find no reward (or reinforcement) in academic achievement and instead apply their intellectual ability to other pursuits which do not conform with the attainment of a high grade point average, as the educational system at present is frequently accused of stifling individuality and promoting conformity. An interpretation of the scale configuration when scale 4(Pd) is dominant over scale 3(Hy), that the aggressive impulses are not being controlled, would suggest that such an individual would not find reinforcement in a system rewarding conforming behavior. If this is the case, more passive students would most likely be adequately reinforced in such a system and would thus work (or perform) for the goals of the system such as a high grade point average. This theorizing is consistent with patterns cited by Dahlstrom, Welsh and Dahlstrom (1975, Volume 2) - rejection and alienation from the system characterizing under-achievers and self-discipline and conformity associated with over-achievers.

It should be noted that the frequent reference to passive, aggressive and unresolved modes of expression made in this study are merely terms or labels for only one aspect of the personality dynamics of each individual subject. Only the relationship of two scales of the MMPI, scales 3(Hy) and 4(Pd), was considered in categorizing the subjects; the elevations of all the other MMPI scales were not considered. In actual interpretation of the profiles the elevation of each scale would play a significant role, with particular attention given to the two highest points in each profile. In this study, only the absolute difference in scales 3(Hy) and 4(Pd) was considered, regardless of whether or not the two scales were the high points of the profile. The categorization of subjects as passive, aggressive or unresolved in mode of expression was not intended to reflect a complete personality assessment, but merely to name one aspect of the complex of personality dynamics.

However, this concentration on the configuration of the 3(Hy) and 4(Pd) scales was felt to be a valid measure of the mode of expression of conflict in this population of normal college males. Murray, Munley and Gilbert (1965) found that scale 4(Pd) generally had a higher elevation for college students. Using

the MMPI, this elevation was interpreted to indicate the presence of aggressive and antisocial impulses. Since the population being considered was composed of normal college males, it was reasonable to assume that there was some elevation of scale 4(Pd) for the majority of the profiles. As Dahlstrom, Welsh and Dahlstrom (1972, Volume 1) pointed out, the dominance of scale 3(Hy) "shows that repressive and suppressive controls are even stronger than the impulse (p. 267)." Thus dominance of scale 3(Hy) would suggest a passive mode of expression while the lack of such a restraint with scale 4(Pd) predominating would suggest an aggressive mode of expression.

The principal weakness in this investigation was the limited range of applicability of the results. The purpose of the study was to determine a significant personality factor which could be used in conjunction with intellectual ability to predict academic success in college. As is frequently the case in research, the results for the personality factor studied, the mode of expression of conflict, were significant only for those students at the extremes of the continuum of passivity to aggression. The hypothesis that a passive mode of expression would facilitate academic success and that an aggressive mode of expression would hinder academic performance was supported only

when a small sample of students with extremely passive and extremely aggressive modes of expression were compared. Although the results were interesting from the standpoint of personality theory, the practical utility for selecting the most promising candidates from the large number of college applicants is slight. The failure of students with high intellectual ability to achieve academic success is a problem still confronting institutions of higher education. However, this research can not offer a concrete method for selecting reliably among the thousands who offer the potential for academic success.

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